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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/666,373	09/18/2003	John C.W. Ngan	2482	8499

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EXAMINER

MANOHARAN, MUTHUSWAMY GANAPATHY

ART UNIT	PAPER NUMBER
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2617

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Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/666,373	NGAN, JOHN C.W.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Muthuswamy G. Manoharan	2687	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Response to Arguments***

Applicant's arguments filed on 01/09/2006 have been fully considered but they are not persuasive.

Examiner respectfully disagrees with Applicant's assertion on Page 6 with the remarks, "Specifically, **claim1**...normal operation".

Applicant's method is a special case of Akhteruzzaman's method. Applicant considered call forwarding to a single directory number ("a previously programmed directory number") and therefore, requires only a single criterion as to when (based on signal strength) to forward the call. However, Akhteruzzaman's method considered a list of telephone numbers. Therefore, Akhteruzzaman has chosen a second criterion in addition to the above criterion in order to select a telephone number from the list of telephone numbers, if the signal strength is weak. Akhteruzzaman's method selects the telephone number based on the location and includes a condition whether to forward the calls or not based on the signal strength. If Akhteruzzaman's list has only one telephone number then there is no need to find the GPS location and the incoming calls can be automatically forwarded to the single telephone number in the event of weak signal link. Akhteruzzaman's call forwarding is based on signal strength and the selection of telephone number is based on GPS location. If the telephone number to be called is fixed (as in the case of the Applicant) then Akhteruzzaman's forwarding is based on signal strength alone.

Examiner respectfully disagrees with Applicant's assertion on Page 10 with the remarks, "As to **claim 11**, this claim...withdrawn".

Examiner already mentioned in the Office action (10/26/2005), that Akhteruzzaman did not disclose expressly continuing to monitor signal strength at said mobile station. However, continuing monitoring of signal strength is well known in the art ("well known in the industry", Section B, First Paragraph as mentioned by the Applicant himself) and is used for many purposes (cell update, cell reselection, call forwarding, handover...). The teachings of Salcic also confirm that. The data obtained from monitoring the signal strength can be used for different purposes and the measurement of signal strength is built into the system.

Byrne teaches when signal strength rises above threshold, said second feature code deactivating said call forwarding (Abstract, lines 10-12; Col. 3, lines 65-66, Col. 4, lines 38-43). Also, it is obvious to one of ordinary skill in the art to use the same criteria for both activation and deactivation of call forwarding. Since call forwarding to a single directory number require only one criterion (based on signal strength in this case), it is obvious to one of ordinary skill in the art to use the same criterion (based on signal strength) to use for deactivation of call forwarding also.

The reasons stated above regarding claims 1 and 2, are applicable to claim 12.

The reasons stated above, are applicable to the Applicant's remarks regarding claim 13.

Examiner respectfully disagrees with Applicant's assertion on Page 11 with remarks "The examiner rejected **claims 2,3,7 and 10**...threshold level", that there is a

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failure in making a prima facie case of obviousness for the combination of Akhteruzzaman and Lundborg. Handoff and call forwarding are analogous art. The teachings in one can be used for the other. Monitoring the signal strength is well known in the industry, (Section B, first paragraph, as mentioned by the Applicant) and is used for many purposes (cell update, cell reselection, call forwarding, handover etc.). Therefore, it would be obvious for one skilled in the art at the time of invention to combine the teachings of Lundborg and Akhteruzzaman.

Examiner respectfully disagrees with Applicant's argument regarding **claim 6**. Claim 6, recites, "The method of claim 1, wherein said feature code is sent to said wireless network over an access channel". This feature code is a control signal and therefore, it is obvious for one of ordinary skill in the art to transmit through access channel.

Examiner respectfully disagrees with Applicant's argument regarding "type of mobile station" in **claim 8**, since the type of mobile station cannot be restricted to the Applicant's interpretation. Threshold level depends also on what is inside the mobile station. The model, make, year etc are labels that may be indirectly related to what is inside the mobile station.

Examiner respectfully disagrees with Applicant's assertion on Page 13 with remarks "**Claim 9** stands...should be withdrawn", that that there is a failure in making a prima facie case of obviousness for the combination of Akhteruzzaman and Chawla. The applicant neither teaches why the threshold level should lie in the range of -85dB to -90dB nor discloses any of his own measurements. It is obvious for any one to look

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for those data from published literature related to wireless communication system.

Therefore, it would be obvious for one skilled in the art at the time of invention to combine the teachings of Chawla and Akhteruzzaman.

Examiner respectfully disagrees with Applicant's assertion on Page 15 with remarks "Claim 14 stands rejected....depends".

Since the RSSI threshold is based on the quality of the received signal strength and therefore it is applicable to call forwarding.

Examiner respectfully disagrees with Applicant's assertion on Page 17 with remarks "Claim 15 stands rejected...threshold".

Signals are affected by both internal and external disturbances irrespective of whether the measurements are for call forwarding or handover or cell reselection or any other reasons. The relation connecting the threshold and the dropped call level is important for quality assurance purposes, and is used set the threshold level irrespective of whether the measurements are for call forwarding or handover or cell reselection. Therefore, the relevancy is justified.

Examiner respectfully disagrees with Applicant's assertion on Page 17 with remarks "Claim 16 stands rejected...claim 13".

The Applicant argues that the two fields (fields of Akhteruzzaman and Hilliard ) have nothings to do with each other. The idea of "threshold offset" (the terms "hysteresis", "ping-pong effect" used in cellular industry) came from statistics (standard deviation in error analysis) and is used when one cannot define threshold for all situations.

Since the claim 17 teaches the same subject matter as claim 8, no new action required.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claim 1, 4, 5, 11 and 13 are rejected under 35 U.S.C. 103(a) as being anticipated by Akhteruzzaman et al. (hereinafter Akhteruzzaman) in view of Salcic (Proceedings of GeoComputation '97) and further in view of Byrne (US 6708028).**

Regarding claim 1, Akhteruzzaman discloses a method of activating call forwarding for a mobile station (Abstract, lines 20-23), comprising the steps of: monitoring a measure of received signal strength at said mobile station; automatically transmitting a first feature code from said mobile station to a wireless network when said monitored measure of received signal falls below a threshold level (item 120 in Figure 4), said first feature code activating call forwarding for said mobile station such that incoming calls are directed to a previously programmed directory number (col. 6, lines 41-46; item 126 in Figure 4); automatically transmitting a second feature code from said mobile station to a wireless network, said second feature code deactivating said call forwarding (col. 1, lines 65-67, col. 2, lines 1-2). Akhteruzzaman did not disclose expressly continuing to monitor signal strength at said mobile station. However, Salcic

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teaches in an analogous art (it is well-known in the art), continuing to monitor signal strength at said mobile station (Section 1.4, Paragraph 3, lines 1-7). Therefore, it would be obvious to one of ordinary skill in the art at the time of invention to use the method of continuing to monitor signal strength at said mobile station. The motivation for doing this would be to know the information regarding when the event of the weak signal link occurs.

Moreover, neither Akhteruzzaman nor Salcic specifically teach when said signal strength rises above said threshold level, said second feature code deactivating said call forwarding. However, Byrne teaches in an analogous art, when said signal strength rises above said threshold level, said second feature code deactivating said call forwarding (Abstract, lines 10-12; Col. 3, lines 65-66, Col. 4, lines 38-43). Therefore, it would be obvious to one of ordinary skill in the art at the time of invention to use the method, when said signal strength rises above said threshold level, said second feature code deactivating said call forwarding. This modification helps to improve the reliability of the communication.

Lastly, it is well known in the art that mobile phone systems forward a call to voicemail if/when a phone is turned "off" or if the signal strength is low (e.g. Inside a building or a tunnel) and forwarding is deactivated when the signal strength is high (e.g. the user move out of the tunnel or building).

Regarding claim 4, Akhteruzzaman discloses the method of claim 1, wherein said mobile station comprises a cellular telephone (item 70 in Figure 1).



Regarding claim 5, Akhteruzzaman discloses the method of claim 1, wherein the previously programmed directory number is changeable by a user of said mobile station by interactively entering said directory number (Col. 6, lines 28-31; Col. 7, lines 10-17; item 114 in Figure 2).

Regarding claim 11, Akhteruzzaman discloses a wireless telephone comprising: circuitry monitoring a measure of received signal strength from a wireless base transceiver station; programmable logic providing instructions for automatically transmitting a first code from said wireless telephone to a wireless network activating call forwarding when said circuitry determines that the received signal strength falls below a threshold level; and programmable logic providing instructions (Col. 6, lines 46-50). Akhteruzzaman did not disclose expressly continuing to monitor signal strength at said mobile station (Paragraph [0056], lines 1-3). However, Salcic teaches in an analogous art, continuing to monitor signal strength at said wireless telephone. Therefore, it would be obvious to one of ordinary skill in the art at the time of invention to use the method of continuing to monitor signal strength at said wireless telephone. The motivation for doing this would be to know the information regarding when the event of the weak signal link occurs.

Moreover, neither Akhteruzzaman nor Salcic specifically teach, transmitting a second feature code from said wireless telephone to a wireless network deactivating call forwarding when said circuitry determines that the received signal strength, having previously fallen below threshold level, rises above said threshold. However, Byrne teaches in an analogous art, transmitting a second feature code from said wireless

telephone to a wireless network deactivating call forwarding when said circuitry determines that the received signal strength, having previously fallen below threshold level, rises above said threshold (Abstract, lines 10-12; Col. 3, lines 65-66, Col. 4, lines 38-43). Therefore, it would be obvious to one of ordinary skill in the art at the time of invention, transmitting a second feature code from said wireless telephone to a wireless network deactivating call forwarding when said circuitry determines that the received signal strength, having previously fallen below threshold level, rises above said threshold. This modification helps to improve the reliability of the communication.

Regarding claim 13, Akhteruzzaman discloses telephony network comprising a plurality of base transceiver stations and roaming mobile stations subscribing to said network (Figure 1), the improvement comprising; providing a service control node (item 56 in Figure 1) in said cellular telephony network that activates and deactivates a call forwarding service for said roaming mobile stations, wherein said call forward service is activated and deactivated by transmission of first and second feature codes from said roaming mobile stations, respectively, and further wherein said first and second feature codes are transmitted when a monitored measure of received signal strength at said mobile stations falls below, and rises above threshold level, respectively (col. 1, lines 65-67, col. 2, lines 1-2). Akhteruzzaman did not disclose expressly monitored measure of received signal strength at said mobile stations rises above threshold level. However, Salcic teaches in an analogous art (it is well-known in the art), monitored measure of received signal strength at said mobile stations rises above threshold level (Section 1.4, Paragraph 3, lines 1-7). Therefore, it would be obvious to one of ordinary skill in the art

at the time of invention to use the monitored measure of received signal strength at said mobile stations rises above threshold level. The motivation for doing this would be to know the information regarding when the event of the strong signal link occurs.

Moreover, neither Akhteruzzaman nor Salcic specifically teach when said signal strength rises above said threshold level, said second feature code deactivating said call forwarding. However, Byrne teaches in an analogous art, when said signal strength rises above said threshold level, said second feature code deactivating said call forwarding (Abstract, lines 10-12; Col. 3, lines 65-66, Col. 4, lines 38-43). Therefore, it would be obvious to one of ordinary skill in the art at the time of invention to use the method, when said signal strength rises above said threshold level, said second feature code deactivating said call forwarding. This modification helps to improve the reliability of the communication.

**Claims 2,3,7 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akhteruzzaman in view of Salcic and further in view of Byrne and further in view of Lundborg (U.S. 6,782,262).**

Regarding claim 2, Akhteruzzaman in view of Salcic and further in view of Byrne discloses all the particulars of the claim, except wherein said step of monitoring a measure of received signal strength comprises the step of monitoring the ratio  $E_c / I_o$ , wherein  $E_c$  is a measure of carrier strength and  $I_o$  is a measure of interference. However, Lundborg teaches in an analogous art, step of monitoring a measure of received signal strength comprises the step of monitoring the ratio  $E_c / I_o$ , wherein  $E_c$  is

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a measure of carrier strength and  $I_o$  is a measure of interference (Col. 9, lines 8-10).

Quality of a digital channel is measured by bit error rate (BER) on the up or down link and is related to the ratio  $E_c / I_o$ . Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use ratio  $E_c / I_o$  for setting the signal strength threshold.

Regarding claim 3, Akhteruzzaman in view of Salcic and further in view of Byrne discloses all the particulars of the claim, except wherein said step of monitoring a measure of received signal strength comprises the step of monitoring a signal to noise ratio of a received signal from a base transceiver station in a cellular telephone network. However, Lundborg teaches in an analogous art, step of monitoring a measure of received signal strength comprises the step of monitoring a signal to noise ratio of a received signal from a base transceiver station in a cellular telephone network (Col. 9, lines 20-22). Speech quality for an analog channel is measured by the signal to noise ratio on the up or down link. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use signal to noise ratio of a received signal from a base transceiver station in a cellular telephone network as a measure of received signal strength.

Regarding claim 7, Akhteruzzaman in view of Salcic and further in view of Byrne discloses all the particulars of the claim, except wherein the threshold level is determined by an element in said wireless network and transmitted to said mobile station. However, Lundborg teaches in an analogous art, the method of call forwarding for a mobile station, wherein the threshold level is determined by an element in said

wireless network and transmitted to said mobile station (Col. 9, lines 1-7). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method, wherein the threshold level is determined by an element in said wireless network and transmitted to said mobile station. The variation of the threshold based on the mobile station has to be taken into account in order to improve the efficiency of communication.

Regarding claim 10, Akhteruzzaman in view of Salcic and further in view of Byrne discloses all the particulars of the claim, except wherein the first feature code is transmitted if the monitored measure of received signal strength remains below the threshold level for predetermined period of time. However, Lundborg teaches in an analogous art, discloses the method, wherein the first feature code is transmitted if the monitored measure of received signal strength remains below the threshold level for predetermined period of time (items 64 and 66 in Figure 6; 51-55). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method; wherein the first feature code is transmitted if the monitored measure of received signal strength remains below the threshold level for predetermined period of time. This waiting period is required in order to avoid performing call forward too often.

**Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Akhteruzzaman in view of Salcic and further in view of Byrne and further in view of Lo (U.S. RE37, 301E).**

Regarding claim 6, Akhteruzzaman in view of Salcic and further in view of Byrne discloses all the particulars of the claim, except wherein said feature code is sent to said

wireless network over an access channel. However, Lo teaches in an analogous art, wherein said feature code is sent to said wireless network over an access channel (Col. 2, lines (66-67)). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of activating call forwarding for a mobile station wherein said feature code is sent to said wireless network over an access channel. This method of sending the feature code through access channel would improve the transmission efficiency and reduce the access delay.

**Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Akhteruzzaman in view of Salcic and further in view of Byrne and further in view of Jensen (U.S. 2002/0022480).**

Regarding claim 8, Akhteruzzaman in view of Salcic and further in view of Byrne discloses all the particulars of the claim, except wherein the threshold level varies depending upon the type of mobile station. However, Jensen teaches in an analogous art, the method of call forwarding for a mobile station, wherein the threshold level varies depending upon the type of mobile station (Paragraph [0015], lines (6-13)). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method, wherein the threshold level varies depending upon the type of mobile station. By including all the factors that are affecting the threshold one can improve the efficiency and performance of cellular system.

**Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Akhteruzzaman in view of Salcic and further in view of Byrne and further in view of Chawla et al. (hereinafter Chawla) (U.S. 6,496,700).**

Regarding claim 9, Akhteruzzaman in view of Salcic and further in view of Byrne discloses all the particulars of the claim except wherein the threshold level lies in the range of -85dB to -90 dB. However, Chawla teaches in an analogous art, wherein the threshold level lies in the range of -85dB to -90 dB (col. 19, lines 37-40). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the threshold level lies in the range of -85dB to -90 dB.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Akhteruzzaman in view of Salcic and further in view of Byrne and further in view of Haub (US 2004/0152429).

Regarding claim 12, Akhteruzzaman in view of Salcic and further in view of Byrne discloses all the particulars of the claim except wherein said wireless telephone operates in a CDMA network and wherein said circuitry monitors the ratio  $E_c / I_o$ , wherein  $E_c$  is a measure of carrier strength and  $I_o$  is a measure of interference. However, Haub teaches in an analogous art, discloses the wireless telephone, wherein said wireless telephone operates in a CDMA network and wherein said circuitry monitors the ratio  $E_c / I_o$ , wherein  $E_c$  is a measure of carrier strength and  $I_o$  is a measure of interference (Paragraph [0022], lines (11-15)). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include the wireless telephone, wherein said wireless telephone operates in a CDMA network and wherein said circuitry monitors the ratio  $E_c / I_o$ , wherein  $E_c$  is a measure of carrier strength and  $I_o$  is a measure of interference.

**Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Akhteruzzaman in view of Salcic and further in view of Byrne and further in view of Kisse et al. (hereinafter Kisse) (US 6567665).**

Regarding claim 14, Akhteruzzaman in view of Salcic and further in view of Byrne discloses all the particulars of the claim, except wherein the service control node sets the threshold level. However, Kisse teaches in an analogous art, wherein the service control node sets the threshold level (Col. 13, lines 10-13). Therefore, it would be obvious to one of ordinary skill in the art at the time of invention to have the service control node sets the threshold level. Since the service control node is forwarding the calls, it is convenient to have the service control node sets the threshold level.

**Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Akhteruzzaman in view of Salcic and further in view of Byrne and further in view of Balachandran (US 5594943).**

Regarding claim 15, Akhteruzzaman in view of Salcic and further in view of Byrne discloses all the particulars of the claim, except wherein the threshold level is determined by reference to a level in which calls are dropped. However, Balachandran teaches in an analogous art wherein the threshold level is determined by reference to a level in which calls are dropped (Col. 2, lines 24-25). Therefore, it would be obvious to one of ordinary skill in the art at the time of invention to use the threshold level, wherein the threshold level is determined by reference to a level in which calls are dropped. This threshold level represent performance threshold, which can be used to determine whether the air link can reliably transmit information.



**Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Akhteruzzaman in view of Salcic and further in view of Byrne and further in view of Hilliard et al. (US 6876949).**

Regarding claim 16, Akhteruzzaman in view of Salcic and further in view of Byrne teaches all the particulars of the claim except wherein the threshold level is offset from a dropped call level by a fixed amount. However, Hilliard teaches in an analogous art ("Error analysis" in Statistics, Also providing an offset using standard deviation is well known in the art) teaches a method wherein the threshold level is offset by a fixed amount (Col. 15, lines 34-38). Therefore, it would be obvious to one of ordinary skill in the art at the time of invention to use the threshold level, wherein the threshold level is offset from a dropped call level by a fixed amount. This modification provides a compromise between signal quality and bad call forwarding decision.

**Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Akhteruzzaman in view of Salcic and further in view of Byrne and further in view of Jensen (U.S. 2002/0022480).**

Regarding claim 17, Akhteruzzaman in view of Salcic and further in view of Byrne discloses all the particulars of the claim, except wherein the threshold level varies depending upon the type of mobile station. However, Jensen teaches in an analogous art, the method of call forwarding for a mobile station, wherein the threshold level varies depending upon the type of mobile station (Paragraph [0015], lines (6-13). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method, wherein the threshold level varies depending upon the type of mobile

station. By including all the factors that are affecting the threshold one can improve the efficiency and performance of cellular system.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Muthuswamy G. Manoharan whose telephone number is 571-272-5515. The examiner can normally be reached on 7:30AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on 571-272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
**LESTER G. KINCAID**  
**SUPERVISORY PRIMARY EXAMINER**